MONTHLY WEATHER REVIEW,

JUNE, 1876.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In compiling the Review for June the following data have been made use of, viz: The weather charts constructed three times per day from the simultaneous observations taken at eighty-eight Signal Service and fourteen Canadian stations; monthly weather reports from four hundred and forty-five stations, classified as Voluntary Observers, Army Posts, Naval Hospitals, Canadian and Signal Service stations; special reports; reliable newspaper extracts; and Marine Records.

The principal meteorological features of the month have been: first, the absence of any extensive storm and the small number of severe winds; second, the unusually heavy rains in the South Atlantic States; third, the unprecedented high water in the Upper Missouri river and in the rivers of Oregon; fourth, the extensive occurrence of thunder-storms and the feeble auroral displays; fifth, the numerous local tornadoes.

BAROMETRIC PRESSURE.

In General.—The general distribution of barometric pressure during the month is shown by the isobars upon Chart No. I, from which it will be seen that the highest monthly mean is reported from Oregon, while the pressure was comparatively low in California. On the eastern side of the Rocky Mountains the pressure has averaged highest (30.03 to 30.06) on the South Atlantic coast, whence it has diminished regularly in all directions; to 29.99 on the Texas coast; to 29.91 in the St. Lawrence valley, and 29.77 in western Dakota. As compared with June, 1875, the pressures have been lower, and especially over the Lake region and Minnesota. As compared with June, 1874, the pressures have been about the same, except decidedly higher in the St. Lawrence valley and Canadian Provinces. The history of changes in pressure during the month is simply a record of a succession of high pressures in Oregon and on the South Atlantic coast, with continued attempts at the formation of areas of low pressure in the interior of the country. The connection between barometric changes on the Pacific coast and those in the interior of the continent has not been so apparent as it is in the winter months. The heating of the dry air over the western plains, and the consequent inflow of cold air from all sides, both from the mountains on the west and from British America on the northeast and the Gulf States on the southeast, has been well marked. The areas of low pressure have been, with one exception, ill-defined and not very permanent; those of high pressure have at no time passed centrally over our territory, but have made themselves felt only on the borders, showing that an area of one thousand miles square is not sufficient for the complete elucidation of the movements of the atmosphere. The heavy rain-fall upon the coasts of Georgia and South Carolina from the 11th to the 17th, and the gales a short distance off the coast, which were, however, scarcely felt at the Signal Service stations, were not accompanied by any barometric depression, so far as yet heard from.

Areas of High Pressure—No. I—Pressure was highest off the South Atlantic on the 1st and 2nd.

II—moved from the Rocky Mountains southeastward on the 3rd; it was over Indian Territory on the 4th; over the Western Gulf States on the 5th; over the Eastern Gulf States on the 6th, and on the 7th was merged into the rising barometer on the South Atlantic coast. Pressure continued highest off the Carolina coast on the mornings of the 8th, 9th, 10th and 11th.